

Gutor PxW AC UPS

Designed for North American Market

PEW 5 – 200 kVA single phase
PDW 10 – 220 kVA three phase
Higher ratings upon request

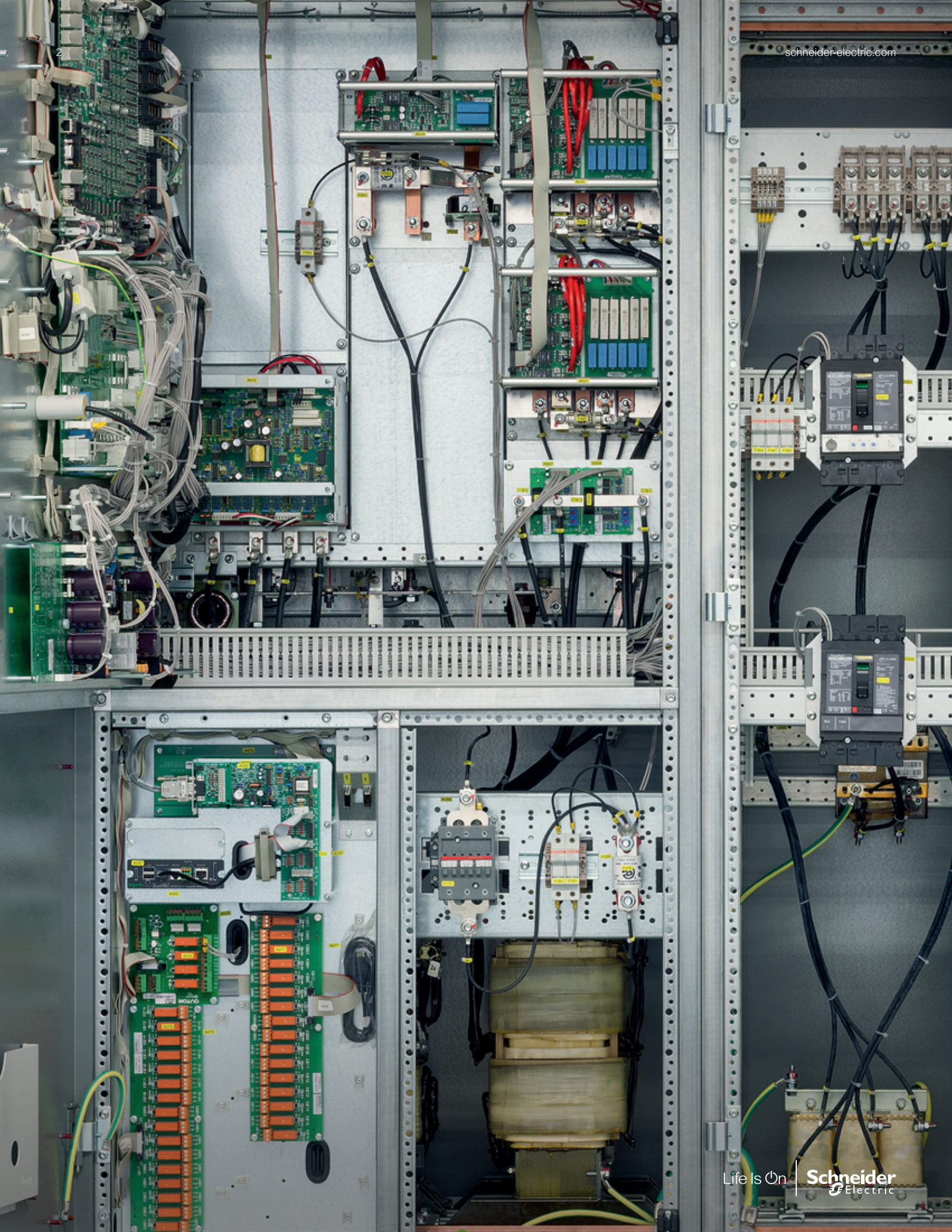


schneider-electric.com

Gutor
technology

Life Is On

Schneider
Electric

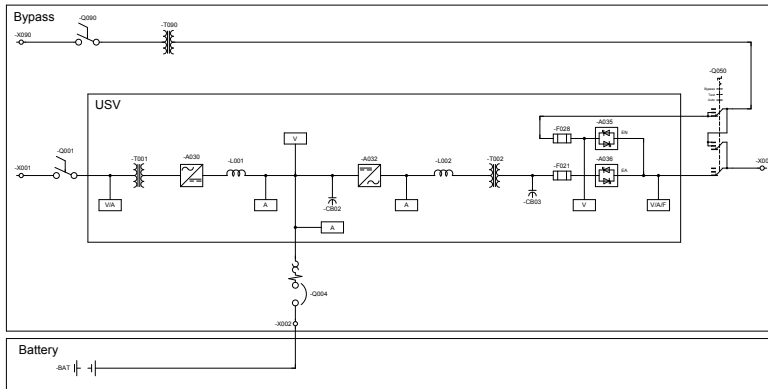


Gutor™ PxW technical data: PEW single phase/PDW three phase

UPS input		
Rectifier input voltage	3 x 208/480/600 V (other voltage upon request)	
Voltage tolerance		
DC in tolerance	+/- 10%	
For function	-15/+10%	
Bypass input voltage		
Single phase	1 x 120/208/240/480/600 V (other voltage upon request)	
Three phase	3 x 208/480/600 V (other voltage upon request)	
Frequency	60 Hz +/- 8% (50 Hz available upon request)	
Inrush current	<10x IN (input current)	
Intermediate DC circuit		
Voltage	110/125/220/400 VDC	
Rectifier voltage tolerance	+/- 1% I-V characteristic	
DC ripple voltage	with battery capacity of 3x nominal current: ≤ 1% rms without battery: ≤ 2% rms, optional without battery: ≤ 1% rms	
Float voltage at -10% line power	100 – 115% programmable	
Boost voltage range at nominal line power	100 – 125% programmable	
Boost charge time	1 – 24 hour programmable	
Charging current limitation	programmable	
Inverter input range (output tolerance +/- 1%)	+20/-15%	
Inverter maximum input range (output tolerance +/- 10%)	+/- 25%	
UPS output		
Nominal UPS Inverter rating	kVA at PF 1.0	
Voltage		
Single phase	1 x 120/240 V (other voltage upon request)	
Three phase	3 x 208/480 V	
Voltage tolerance		
Static within 0 – 100% load	+/- 1%	
Dynamic at 100% load surge	+/- 4%	
Regulation time	<25 ms	
Overload		
Inverter 1 min	105% continuous	
Inverter 10 min	150%	
Bypass 100 ms	125%	
Short-circuit inverter 100 ms	200%	
Frequency	60 Hz +/- 8% (50 Hz available upon request)	
Frequency stability, free running	<0.01%	
Synchronization range	0.5/1/2/4/6/8%	
Slew rate single units	0.25/0.5/1/2/4 Hz/s programmable	
Slew rate redundant system	4.0 Hz/s	
Wave form	sinusoidal	
Admissible output crest factor	unlimited	
Distortion factor		
Linear load	≤ 3%	
Nonlinear load	≤ 5%	
Allowable power factor	0.4 lag – 0.9 lead	
Fault clearing capability	200% for 100 ms via inverter, 1,000% for 100 ms via bypass	
General data		
Ambient temperature range for storage	from -20 to +70 °C	from -4 to +158 °F
Ambient temperature range for operation	from -10 to +55 °C	from 14 to +131 °F
Altitude above sea level	1,000 m without load de-rating	3,280 ft without load de-rating
Allowable air humidity	<95% (non-condensing)	
Noise level standard n+1 fan system	60 – 75 dBA depending on type	
Degree of protection	NEMA 1 (IP20)	
Paint	pearl light gray, RAL 9022 cabinet	
Efficiency	up to 91% depending on type	
Cooling	forced ventilation (two speed) with n+1 redundant, monitored fans	
Standards		
Safety	UL 1778 / CSA 22.2-107.3	
EMC	FCC Part 15 Subpart B, Class A	
Performance	NEMA PE-1	
Conformity	CE-Label	
Seismic	up to 1.0 g	

Gutor PxW specifications: PEW single phase/PDW three phase

Typical single-line drawing



Single-phase drawing

Battery voltage and UPS ratings

Single phase Three phase

Voltage (VDC)	110		125		220		400	
UPS ratings (kVA)	5	—	5	—	5	—	—	—
	10	10	10	10	10	10	—	—
	15	15	15	15	15	15	—	—
	20	20	20	20	20	20	—	—
	40	40	40	40	40	40	—	—
	50	—	50	—	50	—	—	—
	—	60	—	60	60	60	—	—
	—	80	—	80	80	80	—	—
	—	—	—	—	100	100	—	—
	—	—	—	—	—	120	120	120
	—	—	—	—	—	—	150	—
	—	—	—	—	—	160	—	160
	—	—	—	—	—	—	200	—
	—	—	—	—	—	—	—	220

Higher ratings and other voltages on request

Standard configuration

- Single UPS
- UPS output voltage
 - Single phase: 1 x 120 V
 - Three phase: 3 x 480 V
- Rectifier input voltage: 3 x 480 V +10/-10%
- Bypass input voltage
 - Single phase: 1 x 120 V +10/-10%
 - Three phase: 3 x 480 V +10/-10%
- Frequency: 60 Hz +/- 8%
- 6-pulse rectifier with isolation transformer
- Rectifier sized for output PF = 0.8
- Rectifier input breaker
- Fixed charging voltage IU characteristic
- Static switch EN (line power side)
- Static switch EA (inverter side)
- LC display unit with additional alarm LEDs
- Alarm relays for battery operation and common alarm
- Bottom cable entry
- Ground terminal
- N+1 monitored two-speed fans
- Ambient temperature range from +14 to +104 °F
- NEMA 1 (IP20)
- Painting pearl light gray, RAL 9022 structure
- Battery MCCB in UPS
- Three position manual bypass switch
- Bypass backfeed protection



Options

System

- Redundant/Parallel Load Sharing Configuration
- Redundant/Parallel Dual Configuration
- AC distribution
- AC and DC earth-fault monitoring
- Input harmonic filter

Rectifier

- Rectifier input MCCB
- 12-pulse rectifier with isolation transformer
- Oversized rectifier
- Rectifier fuse
- Diode for reverse polarity protection
- Rectifier output isolator/circuit breaker

Battery

- Battery circuit protection box (MCCB/fuse)
- Battery circuit protection in rectifier (MCCB/fuse)
- Low-voltage disconnect
- Battery management system (single cell type)
- Temperature sensor for temperature compensated battery charging
- Battery monitor (programmable battery data)
- Battery asymmetry supervision

Inverter

- Inverter input isolator/circuit breaker
- Black start facility
- Oversized inverter



Bypass

- Bypass switch blocking coil
- Remote manual bypass switch
- Bypass input isolator/circuit breaker
- Bypass isolation transformer
- Bypass voltage regulating transformer
- Independent static bypass switch

Indication and alarms

- Input power failure
- DC earth fault
- Inverter fuse blown
- DC out of tolerance
- 5x customizable options
- Bypass input power failure
- Rectifier fuse blown
- Fan failure
- Internal PSU fault
- Battery discharged
- System overtemperature
- EA inhibited (UPS output static switch)
- Battery disconnected
- Inverter ON
- EN inhibited (Bypass static switch)
- Battery operation
- Boost (Equalize) charge ON
- Manual bypass ON
- Rectifier failure
- Rectifier ON
- Asynchronous
- EA ON (UPS output static switch)
- External horn
- Inverter failure
- EN ON (Bypass static switch)
- Overload inverter/bypass

Communication interfaces

- Front-panel analog meter
- Power meter
- Transducer
- Relay board, 16 fail-safe NO/NC contacts
- RS-232/485 interface (downloadable event log)
- RJ-45 Ethernet port for Web browser-based monitoring
- Modbus protocol on RS-485 or TCP/IP
- IEC 61850 protocol on RJ-45 and/or fiber optic connector
- Profibus[®] on RS-485
- External time synchronization

Mechanical

- Top/bottom cable entry
- NEMA 12 per NEMA 250-1991 (IP52)
- Air filters at air inlet
- 100% redundant ventilation
- Seismic design
- Space heaters
- Panel lighting
- Cabinet color as required
- Ambient temperature maximum +131 °F
- Allowable altitude up to 13,123 ft (4,000 m) above sea level

Additional options are available upon request.

The front panel includes a comprehensive and flexible human-machine interface. It is divided into four sections:

-
- Figure 1: Schematic diagram of the power supply system for the ECU. The diagram shows two power sources (1 and 2) connected to the ECU. Source 1 is connected to the ECU's power input (EA) and ground (Eh). Source 2 is connected to the ECU's power input (EA) and ground (Eh). The ECU is shown with its internal components, including the ECU control unit and the ECU power input (EA). The ECU is connected to the ECU power input (EA) and ground (Eh). The ECU is shown with its internal components, including the ECU control unit and the ECU power input (EA). The ECU is connected to the ECU power input (EA) and ground (Eh).

- Selectable second display language
- Bypass operation
- Boost charge
- Auto boost (equalize) charge
- Battery-capacity test
- Battery-monitor test (optional)
- Set date/time

- Load in percentage of nominal kVA rating
- AC rectifier input voltage and current
- AC bypass input voltage
- Total DC current, battery voltage, and battery current
- Battery temperature (with optional sensor)
- AC Inverter current
- AC output voltage, current, and frequency
- AC output peak current
- Battery backup time remaining (optional with string type battery monitor)
- Event log with date and time (operating mode changes and alarms)



Life Is On



Headquarters

Gutor Electronic LLC,
Hardstrasse 72–74, 5430 Wettingen, Switzerland
P +41 (0)56 437 34 34 | F +41 (0)56 437 34 44 | gutor.info@schneider-electric.com

Gutor Electronic Asia Pacific

Gutor Electronic Asia Pacific Sdn.Bhd
No.19, Jalan Juruukur U1/19, Seksyen U1, Hicom Glenmarie Ind Park,
40150 Shah Alam, Selangor Malaysia

Gutor Americas

12121 Wickchester Lane Suite 400, Houston, Texas 77079, USA
P +888-994-8867 | F +281-588-2199 | gutor.usa@schneider-electric.com

schneider-electric.com/gutor

